

--74. (new). An electrical cable consisting essentially of a conductor, a layer of insulation around said conductor and a material flowable at about 25° C. between the conductor and the layer of insulation which provides self-sealing properties to the cable and wherein said material is a dielectric that does not substantially absorb moisture or swell upon contact with moisture having capacity, upon creation of a discontinuity in the layer of insulation of reestablishing continuity in the layer of insulation in a reversible manner.

75. (new) The electrical cable of claim 74 wherein said material has a 100 gram needle penetration value greater than 100 tenths of a millimeter at 25° C.

76. (new) The electrical cable of claim 75 wherein said material contains inert filler material.

77. (new) The electrical cable of claim 75 wherein said material is substantially free of solvents and oils.

78. (new) The electrical cable of claim 75 wherein said material is a polymeric material.

79. (new) The electrical cable of claim 78 wherein said material is made from low molecular weight copolymers of an isomer.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

80. (new) The electrical cable of claim 78 wherein said material is made from isobutene copolymers.

81. (new) The electrical cable of claim 78 wherein said material is an isomer.

82. (new) The electrical cable of claim 74 wherein the conductor is formed by a plurality of wires stranded together.

83. (new) An electrical cable as set forth in claim 74 having empty spaces formed during or after a cable manufacturing process wherein the empty spaces are formed prior to installation of the cable, during the installation of the cable, and after the cable is placed in service, within said layer insulation and between said layer insulation and the conductor, contain the material which provides the cable with self-sealing properties.

84. (new) A method of making an electrical cable which mitigates the effects of voids, puncture, or cracks formed in an insulation layer prior to installation of the cable, during the installation of the cable, and after the cable is placed in service comprising the steps of:

(a) forming a conductor,

(b) applying a layer of material flowable at about 25° C. which provides self-sealing properties on the exterior of the conductor; and

(c) forming an layer of insulation around the conductor wherein said material is a dielectric that does not substantially absorb moisture or swell upon contact with moisture, has

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capacity, wherein upon creation of a discontinuity in the layer of insulation in the cable, the material will reestablish continuity in the layer of insulation of the cable in a reversible manner.

85. (new) The method of claim 84 wherein the conductor is formed by a plurality of wires stranded together.

86. (new) The method of claim 84 wherein said material has a 100 gram needle penetration value greater than 100 tenths of a millimeter at 25° C.

87. (new) The method of claim 86 wherein said material is a polymeric material.

88. (new) The method of claim 87 wherein said material is an isomer.

89. (new) The method of claim 84 wherein said material flows into voids, punctures, or cracks in the layer of insulation formed during the installation of the cable.

90. (new) The method of claim 84 wherein said material flows into space between the conductor and the layer of insulation formed during the installation of the cable.

91. (new) The method of claim 84 wherein said material flows into space between the conductor and the layer of insulation formed prior to the installation of the cable.

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92. (new) The method of claim 84 wherein said material flows into voids, punctures, or cracks in the layer of insulation formed prior to installation of the cable.

93. (new) The method of claim 84 wherein said material flows into voids, punctures, or cracks in the layer of insulation formed after the cable is placed in service.

94. (new) The method of claim 84 wherein said material flows into space between the conductor and the layer of insulation formed after the cable is placed in service.

95. (new) The method of claim 84 including applying a water barrier material over the conductor before applying the self-sealing material in step (b).

96. (new) The method of claim 95 wherein the water barrier is a polymer sheet.

97. (new) A method for imparting to a cable comprising a conductor and at least one insulating layer having a capacity of self-repairing the at least one insulating layer, the method comprising providing the cable with an inner layer comprising a dielectric material that does not substantially absorb moisture or swell upon contact with moisture is flowable at about 25° C. and has the capacity, upon creation of a discontinuity in the at least one insulating layer, of reestablishing the continuity in the at least one insulating layer in a reversible manner.

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1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
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98. (new) The method according to claim 97 wherein the material is capable of at least partially filling the discontinuity without leaking from the cable in an uncontrolled manner.

99. (new) A method for manufacturing a cable having a layer of self-repairing material, comprising the steps of:

- (a) depositing the self-repairing material, maintained in a fluid state, on a cable core; and
- (b) forming the layer of self-repairing material so as to obtain a uniform layer of predetermined thickness wherein said material is a dielectric that does not substantially absorb moisture or swell upon contact with moisture, is flowable at about 25° C. and has capacity, wherein upon creation of a discontinuity in a layer of an insulation in the cable, the material will reestablish continuity in the layer of insulation of the cable in a reversible manner.

100. (new) A method for imparting a self-repairing capacity to a cable, wherein the cable comprises:

a conductor; and

at least one insulating layer;

the method comprising providing the cable with an inner layer comprising a dielectric material;

wherein the dielectric material does not substantially absorb moisture or swell upon contact with moisture,

wherein the dielectric material is flowable at about 25 °C, and

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